

MALAYSIAN ACCOUNTING REVIEW

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MALAYSIAN ACCOUNTING REVIEW

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PREFACE FROM VICE CHANCELLOR UiTM

It is such a great honour for me to be given the opportunity to preface the inaugural issue of the Malaysian Accounting Review (MAR), the first international refereed accounting journal in this country. I wish to congratulate the Faculty of Accountancy, UiTM and the Malaysian Institute of Accountants (MIA) for their proactive effort in making this journal a reality. In the words of Zig Ziglar, "... if you have a vision for it, you can accomplish it". This marks a new beginning and a significant milestone for the accounting profession: practitioners and academicians at large.

This pioneering smart partnership between MIA and UiTM is timely and highly commendable. Today, we live in an era where information must be properly managed and strategically used as our competitive tool. To best manage and use the information, we must integrate descriptive and prescriptive applications. Whilst professional journals focus on descriptive and "what is" measures, academic refereed journals provide support to the accounting profession by prescribing the "what should" phenomena through research findings and empirical evidence. Both measures must be embedded and should be in tandem with each other; it is the only way for the accounting profession to stay on the cutting edge. It is without doubt that MAR will act as a catalyst to bridge the gap between theory and practice.

The publication of the MAR is part of UiTM and MIA's mission to make Malaysia a renowned and reputable centre of accounting excellence in this region. Whilst the journal provides an excellent avenue for researchers (both local and foreign) to publish their research findings, it should also serve as a platform for intellectual discourse, for others.

In closing, I wish to congratulate the Faculty of Accountancy, UiTM, for its vision in initiating a smart partnership with MIA. To MIA, I am sure that this partnership is an added value to your role as a regulatory body to the accounting profession in Malaysia.

Datuk Professor Dr Ibrahim Abu Shah
Vice Chancellor
Universiti Teknologi MARA (UiTM)
MALAYSIA

UiTM AT A GLANCE

Universiti Teknologi MARA (UiTM) started as a college known as Kolej RIDA in 1956. Incidentally, accounting programs such as LCCI, Australian Society of Accountants (ASA) and Institute of Cost and Work Accountants (ICWA) were among the pioneer programs offered by the then, School of Accountancy. Kolej RIDA continued to expand and in 1967 it was further upgraded and its name was changed to Institute Teknologi MARA (ITM).

As an Institute, ITM continued to add other accounting programs: Diploma in Accountancy (DIA), Malaysian Association of Certified Public Accountants (MACPA), Association of Certified and Chartered Accountants (ACCA), Chartered Institute of Management Accountants (CIMA) and the Advanced Diploma in Accountancy (ADIA) to its portfolio. What started, as a humble beginning in a small campus in Petaling Jaya was later expanded to other areas throughout the country. In 1996, the ITM Act was amended to allow the institute to offer various programs, viz., first degrees, Masters degrees and PhD programs. To commensurate with the university type of programs that the Institute was offering, ITM was officially conferred the university status in 1999. With effect from 26 August 1999, the Institute was known as Universiti Teknologi MARA or UiTM with 18 faculties and 13 branch campuses to its credit.

Today, being one of the most dynamic faculties in UiTM, the Faculty of Accountancy is also offering other accounting programs such as the Certified Accounting Technicians (CAT-UK), CPAAustralia, Institute of Chartered Secretaries and Administration (ICSA-UK), Master of Accountancy and Doctor of Philosophy (PhD Accounting). Within the next year, several new programs such as Accounting Information System (AIS), Taxation, Management Accounting, Internal Auditing, Corporate Governance and Forensic Accounting and the newly known Malaysian Institute of Certified Public Accountants (MICPA) will be offered.

The Faculty's two-tier mission allows it to focus on two important aspects; nurturing of professional accounting graduates as well as becoming a renowned Centre of Excellence in Accounting Research & Consultancy. In tandem with our two-tier mission, the Faculty of Accountancy strives to produce quality graduates and quality research & consultancy.

PRESIDENTIAL MESSAGE

On behalf of the Malaysian Institute of Accountants (MIA), I would like to congratulate Universiti Teknologi Mara (UiTM) for its timely effort in initiating the publication of the 'Malaysian Accounting Review'. The Malaysian Institute of Accountants is indeed pleased to be associated with this publication, which is the first international refereed academic accounting journal in this country. The Malaysian Accounting Review is a vital platform for which various key areas useful to the development of the accountancy profession can be examined, analysed and digested. Indeed, this inaugural publication will serve as a catalyst and act as an important tool for students, researchers, accountants, academicians as well as other relevant parties to enhance their knowledge in these areas.

As the regulatory body for the accountancy profession in this country, MIA recognizes the need to provide continuous support and to be involved in research and development activities relating to the accountancy profession. We believe that this smart partnership between the accounting academicians and the profession will strengthen MIA's position to become a globally recognized and respected business partner committed to nation building. With the continued support and cooperation from all stakeholders and through this publication of the Malaysian Accounting Review, we are confident that the profession will further progress in its commitment towards making the country a center of accounting excellence.

Abdul Samad Haji Alias (Dr)
President
Malaysian Institute of Accountants (MIA)

THE MALAYSIAN INSTITUTE OF ACCOUNTANTS

The Malaysian Institute of Accountants (MIA) is a statutory body set up under the Accountants Act, 1967 to regulate and develop the accountancy profession in Malaysia. The functions of MIA are, inter alia:

- To regulate the practise of the accountancy profession in Malaysia
- To promote in any manner it thinks fit, the interests of the accountancy profession in Malaysia;
- To provide for the training and education by the Institute or any other body, of persons practising or intending to practise the profession;
- To determine the qualifications of persons for admission as members; and
- To approve, regulate and supervise the conduct of the Qualifying Examination

Vision of MIA

To be a globally recognised and respected business partner committed to nation-building.

Mission of MIA

To develop, support and monitor quality and expertise, consistent with global best-practises in the accountancy profession in the interests of stakeholders.

MIA regulates its members who are Chartered Accountants in public practice, commerce and industry, the public sector and academia. A qualified person who wishes to hold himself or herself out as a Chartered Accountant or an accountant in Malaysia has to be registered with MIA.

MIA is responsible for promoting and regulating the accountancy profession in Malaysia. The Institute is actively involved in the development and issuance of approved auditing standards and also participates in the development of applicable approved accounting standards by the Malaysian Accounting Standards Board. Additionally, MIA also actively participates in legislative initiatives and developments, spearheaded by the Securities Commission, the Kuala Lumpur Stock Exchange and Bank Negara Malaysia. These initiatives relate to the regulation of the capital and financial markets, corporate governance, and the Companies Commission of Malaysia, in the regulation of companies pursuant to the Companies Act 1965.

MALAYSIAN ACCOUNTANCY RESEARCH AND EDUCATION FOUNDATION

The Malaysian Accountancy Research and Education Foundation (MAREF), a trust for the promotion, encouragement and advancement of accountancy research and education in Malaysia, was set up in 1990 and received its certificate of registration as a corporate body under the Trustees (Incorporation) Act 1952 on 26 July 1993. MAREF is a trust body sponsored by the Malaysian Institute of Accountants (MIA)

The objectives of MAREF inter alia are:

1. To encourage and promote the advancement and development of accountancy in Malaysia.
2. To pay all or part of the fees payable including other expenses incurred and/or incidental to the education, training and/or maintenance in respect of deserving persons who are being educated or wish to be educated or wish to be trained in the accountancy profession in recognised institutions of learning.
3. To carry out such other legally charitable purposes for the advancement of education and training in the accountancy profession.
4. To carry out research in and to promote development of the profession of accountancy in general and in particular the development of accounting and auditing standards.
5. To publish and disseminate literature in advancement of the accountancy profession.

EARNINGS MANAGEMENT: BACKGROUND, CRITICISMS AND ANSWERS

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ABSTRACT

In a series of speeches to the financial community during 1998, U.S. Securities and Exchange Commission's former Chairman Arthur Levitt, declared war on "improper earnings management, big bath restructuring charges, and cookie-jar reserves". Current news about firms such as Enron has also brought attention to both how and why managers manage earnings. Accounting numbers form a fundamental part of an organization's efficient contracting technology. Many of the terms, conditions, and covenants found in contracts use accounting variables, contractual arrangements and the associated contracting costs as the major determinant of accounting method choice (hence earnings management). Thus, using the propositions of contracting theory, it is possible to predict and explain accounting choices. In this paper we will provide evidence from the literature that companies have the ability to manage (manipulate) earnings using Generally Accepted Accounting Principles (GAAP). Different reasons for this manipulation are mentioned, viz., the existence of contracts among the firms, external/internal parties and the market pressure for firms to perform at an expected level. The paper also provides a review of literature on earnings management in an international setting (such as in Japan). The model suggested in this paper can be used to test contracting and market pressure theories in Malaysia.

INTRODUCTION

Earnings management is not a new topic for either accounting practitioners or researchers. Generally Accepted Accounting Principles (GAAP) has provided the means to manage earnings. A 1998 Business Week Poll reported that 12% of CFOs had managed earnings at the request of their superiors and an additional 55% of CFOs said that they were asked to do so as quoted in Duncan, 2001. Pressure to manage earnings does not stem from a single force. Factors such as analysts' forecasts, access to debt markets, competition, contractual obligation, roaring stock market, new financial transactions, market disregard of big charges, merger attractiveness, management compensation, short-term focus, unrealistic plans and budgets, period-end requests from superiors, excessive profit followed by fear of decline, concealing unlawful transactions, personal bonuses, promotions, focus on team, and job retention are among the reasons that are mentioned in the literature (Duncan, 2001).

This topic has been researched for many years, however, the topic became well known when Watts and Zimmerman published their paper in 1986 that emphasized positive accounting theory behind choices of accounting methods. The earnings management issue has again become the focus of current research after former U.S. SEC chairman Levitt, cautioned management's earnings manipulations in a series of speeches in 1998 and after recent publicity that resulted from the Enron case in the U.S.. The purpose of this paper is threefold; first to provide literature background on earnings management, second to provide possible reasons for earnings management in Malaysia, and third to suggest a method for estimating the amount of earnings managed.

Positive accounting theory suggests that a firm's accounting policy choices are derived from contracting processes and their related costs. Accounting numbers are usually used in contracts, and managers of companies can obtain different accounting numbers using different accounting methods, which follow accepted accounting principles. As a consequence, one can hypothesize that accounting method choices are affected by firms' contractual arrangements. Three kinds of contracts have been linked to accounting method choices: contracts between debtholders and management, owners and management, and management and political parties. As a result, three hypotheses have been suggested in the positive accounting literature to explain the accounting method choices: the debt hypothesis, the management compensation plan hypothesis, and the political cost hypothesis. Given the above hypotheses, much research have tried to empirically test the positive accounting theory of Watts and Zimmerman. Studies of accounting choice tests provide evidence that debt, management compensation, and political process variables are statistically significant. The explanatory power of the models used to test the theory, however, has tended to be quite low, reducing the overall credibility of the empirical evidence. Further research of earnings management revealed that other variables were also influential in the choices of accounting methods (such as the firm's ownership structure). One common approach researchers use to detect earnings management is to first identify situations in which managers' incentives to manage earnings are likely to be strong, and then test whether patterns of unexpected accruals are consistent with these incentives. It is imperative in this approach to estimate normal accruals, which are not publicly visible, before earnings management. Researchers use various models (e.g., Jones, 1991 model) to estimate normal accruals, and the unexplained components of total accruals are believed to be the results earnings management on the part of managers.

Researchers have identified a number of scenarios in which managers have strong incentives to manage earnings. These situations include management buyouts, mergers and acquisitions, proxy contests, anti-trust lawsuits, and when firms seek government subsidies, among others. The findings of these studies are generally consistent with researchers' expectations.

This paper is organized as follows. Section I provides a review of possible reasons for earnings management and if these reasons can be applicable to Malaysian accounting practices. Section II provides the model specification of the dependent variable. Section III offers concluding remarks and our suggestions for future research of earnings management in Malaysia.

WHY EARNINGS MANAGEMENT

As a result of early studies of the effect of accounting data on the market price of securities (e.g., Ball and Brown, 1968; and Beaver, 1968) accounting research began to focus more on how accounting information is used and what kind of information is needed, given the decision-makers' utility functions and their decision-making models (e.g. Libby, 1981).

The **Information Perspective**, the notion that the purpose of accounting data is to provide information to investors, creditors, and other interested persons, views accounting information as the input for valuation models. It suggests that accounting numbers supply information for investment decisions and assumes both that information is costless and that there are no transaction costs. Information that does not inform the market should be useless, and the extent to which the information does inform the market can be measured by the degree of market reaction to the release of that information. The better the input (the accounting information) is, the better the output (usually measured by the market's reaction to the release of the information).

This perspective further resulted in the adoption of the mechanistic and the no-effect» perspectives. The mechanistic perspective suggests that corporate managers change accounting procedures to inflate reported earnings and their corporation's stock price (Watts and Zimmerman, 1972). However, early tests of the market reaction to changes in accounting techniques (e.g. Ball et.al., 1968) provide no evidence for an association between abnormal market returns and changes in accounting techniques unless a tax effect was associated with the change(s). Consequently, the mechanistic view of accounting choices was rejected and the no-effect theory was adopted. Under the no-effect theory, changes in accounting numbers resulting from the changes in accounting methods per se do not affect the market. However, companies were changing their accounting procedures, and it appeared that no explanation existed for these changes and their choices of accounting methods:

The failure of the information perspective to explain why companies were choosing certain accounting methods resulted in the introduction of another perspective, the **Contracting Perspective** that would presumably explain and predict accounting method choices. The contracting perspective considers a firm as a nexus of contracts. A firm, or the parties that constitute it, can have explicit and/or implicit contracts with several parties, such as stockholders, debtholders, management, employees, customers, government, politicians, and environmentalists. The contracting perspective recognizes the information and/or transaction costs that were ignored in the tests of the information perspective.

Accounting numbers may be used directly or indirectly in any of these contracts. For example, it is well documented that accounting numbers are used in debt covenants and are the basis for determining management bonuses. Also, labor unions have often used these numbers to indicate that firms are able to improve workers' compensation packages. Thus, employees' compensation contracts are also affected by accounting numbers. Since the different accounting methods available for firms and their managers yield different accounting numbers, it is logical to conclude that the choices of accounting methods are biased toward firms' explicit and implicit contracts.

Positive accounting theory suggests that choices of accounting methods are driven by contracting variables. Usually, three sets of contracting variables are proposed for accounting-method decisions. The sets of variables, which can be both explicit and implicit, are related to debt covenants, managers' compensation, and political processes. Watts and Zimmerman (1986) hypothesized the following relationship between the accounting method choices and the above sets of variables:

Debt/equity hypothesis. The larger a firm's debt/equity ratio, the more likely the firm's manager is to select accounting procedures that shift reported earnings from future periods to the current period (p. 216).

Bonus plan hypothesis. Managers of firms with bonus plans are more likely to choose accounting procedures that shift reported earnings from future periods to the current period (p. 208).

Size hypothesis. The larger the firm, the more likely the manager is to choose accounting procedures that defer reported earnings from current to future periods (p. 235).

The debt/equity hypothesis, bonus plan hypothesis, and size hypothesis are related to debt covenants, managers' compensation, and political processes, respectively. Given the above hypotheses, the studies of positive accounting theory have been designed either to explain and predict (in-use) accounting-methods (e.g., Hagerman and Zmijewski, 1979) or to find the effect of changes in the explanatory variables on accounting method choice (e.g., change in bonus plan in Healy, 1985).

If the choice of accounting policies results from conditions relating to contracting variables, then it is logical that material changes in the contracting variables should cause a follow-up change in the accounting policies. The direction of the change in the accounting policies (income-increasing or income-decreasing) should depend on the direction of the change(s) in the contracting variables. For example, if the debt-to-equity ratio (as surrogate for debt covenants) increases, according to the debt/equity hypothesis, the researcher looks for changes resulting in an increase in the amount of earnings. The studies in this category do not usually construct a model for choices of accounting methods. As a result, they do not usually include any particular dependent variable (except the condition which is shared among the companies). Since the prediction of the choices is only income-increasing or income-decreasing, the results of these studies are not easily generalizable outside a specific set of conditions.

Three sets of changes and/or differences in independent variables have interested researchers the most: changes in the managers' compensation or their interests (e.g., their job), changes in the political environment, and changes in debt and debt covenants.

The relationship between the choice of accounting methods and debt covenants has also been the subject of extensive studies (e.g. Daley and Vigeland, 1983, and Healy and Palepu, 1990). Daley and Vigeland (1983) investigated the choice between capitalization and expensing of research and development (R&D) costs prior to 1974. Their investigation showed an association between the R&D accounting method and size (as a proxy for the political cost), degree of leverage, and dividend restrictions. Since their methodology compared two different groups of firms (those who adopted R&D capitalization and those who did not), they did not produce an expected amount for accruals or earnings. Results of their study indicated that smaller firms capitalized the R&D costs relatively more often than larger firms, which resulted in higher net income for the smaller firms during periods of capitalization. Their results also revealed that firms who chose to capitalize R&D costs were more highly leveraged, used more public debt, and were closer to dividend restrictions.

An example of earnings management related to compensation plans is Healy (1985). Healy partitioned the data according to the details of the management compensation plan and found that choices of accounting procedures corresponded to the maximization of the present value of the management compensation. His study revealed that when the upper and lower limits in the managers' compensation bonus plans changed, managers chose a set of accounting methods that would increase their compensation.

Among those studies that test positive accounting theory in different political environments are Liberty and Zimmerman (1986) and DeAngelo (1988). Liberty and Zimmerman looked for an association between reduced reported earnings and labor union contract negotiations. Theoretically, during a labor union contract negotiation, lower earnings indicate that firms are unable (or less able) to increase labor compensation packages. Liberty and Zimmerman used a random-walk model to predict the expected amount of earnings, and the difference between the expected and actual earnings was assumed to be the amount of manipulation in income. The results of the study, however, did not indicate that managers chose income-decreasing accounting methods when labor union contract negotiations were in progress. However, Lim and Matolcsy (1999) document that Australian firms managed earnings in response to product price controls established by the Australian government in the early 1970s.

Other variables have also been examined as reasons for earnings management. One of the most noted variables is the effect of market expectation of earnings (market pressure). For example, Teoh, Welch, and Wong (1998) found that earnings management surrounding a public offering resulted in positive market reaction and subsequent market under performance. Prior research has revealed that investors place great importance on earnings announcement. Barton and Simko (2002) show that the market imposes a penalty for missing expected earnings. It is interesting that they found that "the penalty imposed by the market per penny of earnings per share missed is more severe for firms missing by a penny than by a larger amount." This finding suggests that the incentives to meet expectations are stronger for firms about to miss expectations by a small amount than for other firms. Kasznik (1999) provides further evidence on the market-pressure effect on earnings management. Based on his suggestion, managers manage reported earnings toward their forecasts. Basically, the forecast errors would cause the manipulation or management of discretionary accruals¹.

¹ Statement of Auditing Standards No. 89 warns on immaterial income-increasing discretionary accruals in an attempt to avoid small negative earnings surprises.

Kasznik, however, did not find any evidence that underestimated earnings are associated with income-decreasing discretionary accruals. Given results observed in such studies, the no-effect theory mentioned earlier in this paper can be easily challenged².

Managers do not have unlimited time and/or accounting choices to manage earnings. Stated differently, managers of firms that start with the balance sheets that have already been affected by prior-years' earnings management, have less ability to manage earnings than those whose balance sheets do not contain prior-year earnings management³. Furthermore, the firm's characteristics affect the accruals quality (Dechow and Dichev, 2002). Given Dechow and Dichev findings, one can suggest that the firms' earnings management ability is not only limited by prior-year's earnings management, but also with the firm's observable characteristics. For example, they found that accrual quality is negatively related to the length of the operating cycle while it is positively related to the firm size.

One topic that we have not mentioned is the role of auditors in earnings management. One of the main responsibilities of audit work is to provide a report on fairness of the financial statements. The issue is how the auditors react to earnings management⁴. Some studies have provided support that high quality audits result in less earnings management or reduced opportunistic accounting choices (e.g., Francis and Krishnan, 1999, and Gaver and Paterson, 2001). Other studies address the independence of auditors from their audit work and how this independence can be jeopardized. For example, Frankel, Johnson, and Nelson (2002) provide evidence that non-audit services can impair independence through the economic bond between the company and auditor. They show that "firms purchasing more non-audit services from their auditor are more likely to meet or beat analysts' forecasts and report larger absolute discretionary accruals."

Some studies have emphasized the responsibility of Audit Committees. As the former SEC Chairman Levitt had indicated on different occasions, the quality of accounting numbers had eroded. The NYSE and NASD responded by establishing a Blue Ribbon Committee to address the concerns regarding the quality of earnings. As a result of the committee's recommendations, audit committee members are now required to be financially literate and at least one of the members is required to have expertise in financial accounting (McDaniel, Martin and Maines, 2002).

In an international setting, accounting methods and standards have been developing through organizations such as the International Accounting Standards Committee (IASC), the International Auditing Practices Committee, the International Organization of Securities Commissions (IOSCO), the European Union (EU), and the Association of Southeast Asian Nations (ASEAN). Land and Lang (2002) provide evidence that accrual/cash flow correlations (or accounting practices) have become more similar across countries over time. Darrough, Pourjalali, and Saudagaran (1998) provide evidence that is similar to U.S.A.'s variables which affected Japanese's earnings management in the 1990s. For example, they found that debt-to-equity explains accounting accruals choices in 1991 and 1992, while is not a

² Both Healy and Wahlen (1999) and Barton and P. Simko (2002) provide a list of studies that have shown the relationship between the market and earnings management/manipulation..

³ Barton and Simko (2002) provide empirical evidence that firms missing earnings expectations by a small amount do so because they have limited discretion to bias earnings upwards.

⁴ SAS 57, SAS 82, SAS 89, and SAS 90 are relevant standards to the issue of earnings management (see Jackson and Pitman, 2001 for further details).

determinant for 1989 and 1990. These types of findings may suggest that over time, managers operating in different countries adopt similar accounting accruals to their counterparts in the U.S.A. Given that the Malaysian Institute of Accountants (MIA) has been adopting International Accounting Standards (IASs) and subsequently Malaysian Accounting Standards Board (MASB) continues to do so, it is very possible that the variables explaining earnings management in the U.S.A. can explain earnings management in Malaysian companies.

As Iskandar and Pourjalali (2000) report, the British influenced the early development of the accounting profession in Malaysia. The Malaysian Association of Certified Public Accountants (MACPA) was the first accounting body formed under the Companies Ordinance in 1958, a year after independence. MACPA continued to be influenced by British accounting practices, as the body that provided accounting education, training, and rule-setting in Malaysia until 1967. Recognizing the importance of the accounting profession and its role in sustaining economic and business developments, the Malaysian government enacted the Accountants Act 1967 under which the Malaysian Institute of Accountants was established. The MIA is empowered with the statutory authority to regulate the accounting practices in Malaysia.

Economic growth created considerable need for efficient and effective accounting standards and practices in Malaysia. However, because of the shortage of local experts to respond to these needs, the MIA resorted to adopting IASs issued by the IASC. By being a member of the Board of IASC, MIA has been actively participating in the standards-setting of IASC. The MIA is also a member of several other international committees including the Public Sector Committee of the International Federation of Accountants (IFAC), the Steering Committee of IASC, and the Education Committee of IFAC.

The Accounting and Auditing Standards Committee of the MIA was responsible for adopting IASs. The IASs are reviewed in terms of their relevance and their conformance with Malaysian legal and regulatory requirements. In addition to adopting IASs, the MIA issues Malaysian Accounting Standards (MASs) to satisfy the specific needs of industries such as insurance, property development, and aquaculture, which cannot be fulfilled by any of the IASs. The Securities Commission Act 1993 empowers the Securities Commission to streamline the operation of the securities and financial futures markets. As a result, all companies that wish to be quoted on the Kuala Lumpur Stock Exchange (KLSE) must meet the specified accounting requirements.

The accounting profession in Malaysia further developed with the establishment of the Financial Reporting Foundation (FRF) and MASB under the Financial Reporting Act 1997. The MASB has the primary responsibility to issue new accounting standards, revise or adopt existing accounting standards, issue statements of principles, develop a conceptual framework and undertake public consultation in the determination of the contents of its pronouncements (Foreword to MASB, 1999). As an initial step, the MASB has adopted all the IASs issued by MIA and MACPA prior to its formation and gave those standards the status of approved accounting standards. The MASB continues to amend and rescind IASs and replace them by new MASB standards. The MASB emphasizes on the international harmonization of financial reporting. Hence, in the process of issuing the standards references are made to IASC and national standards setters of other countries.

As we mentioned previously, Malaysian accounting standards (following IASs) also provide opportunities for managers to manage earnings. We believe that similar variables that affect earnings management in Western countries (such as U.S.A.) may affect the choices of

accounting methods in Malaysia. In addition to the variables mentioned above, other variables may also influence the earnings management in Malaysia. For example, the difference in ownership structure may be a contributory factor in Malaysian earnings management. However, literature in this area in Malaysia is lacking. Prior studies have shown that the ownership structure may explain the choices of accruals and earnings management (e.g., Masako, Pourjalali, and Saudagaran, 1999). Based on the World Bank (1999) assessment, companies listed on the Kuala Lumpur Stock Exchange (KLSE) are categorised into four groups based on the relationship between the control and cash flow rights of the parties who control the companies. These categories include (1) Management-controlled companies with dispersed shareholding; (2) shareholders-controlled companies where the controlling shareholder has a direct majority stake with control rights more closely aligned with cash flow rights; (3) Shareholders-controlled companies where the controlling shareholder has a direct but a substantial minority stake with his control rights aligned with his cash flow rights (probably lesser than the category 2 companies); and (4) Shareholder-controlled companies where the controlling shareholder has only an indirect stake. Further research is needed to provide evidence on the extent of earnings management practice in Malaysia.

The literature presented above is predominantly based on research done in more advanced countries (such as U.S.A.). Related research in the area of earnings management in this region is still at the infant stage (e.g. Eng and Mak, 1999, and Gul, Tsui and Wong, 1999). Hence, an additional evidence is needed to establish whether the model of earnings management discussed above is applicable in a different setting with different regulatory environments such as Malaysia. This is particularly necessary for comparison purposes since accounting standards in this country have been benchmarked against the international accounting standards.

DEPENDENT VARIABLE MODEL SPECIFICATION

Most of the past studies have used three different approaches in defining the accounting choice variable: (1) single procedures (e.g. Hagerman and Zmijewski, 1979); (2) sets of procedures (e.g. Zmijewski and Hagerman, 1981; Press and Weintrop, 1990; Inoue and Thomas, 1996); (3) and net accruals (e.g. Healy, 1985; DeAngelo, 1988). However, all three definitions of accounting choices have been criticized as being poorly specified, and consequently, they may have contributed to the low power of the tests (Watt and Zimmerman, 1990).

The discretionary accruals concept was subsequently developed (Jones, 1991; Dechow, Sloan and Sweeney, 1995; Pourjalali and Hansen, 1996) which provides an improved means of detecting earnings management. Jones (1991) developed a model to capture the discretionary component of total accruals. The total accruals are defined as "the change in non-cash working capital before income taxes payable less total depreciation expense" (Jones, 1991, p. 207). Jones (1991) uses an expectation model for total accruals to control for changes in the economic circumstances of each firm in order to relax the assumption that the changes in total accruals are due solely to changes in discretionary accruals. The expectation model uses an estimation period for each firm that ranges between 14 and 32 years.

Dechow, Sloan and Sweeney (1995) assess the relative performance of five alternative discretionary accrual models (Healy, 1985; DeAngelo, 1986; Jones, 1991) at detecting earnings management. The evaluation was made on alternative accrual-based models for detecting earnings management by comparing the specification and power of commonly used

test statistics across the measures of discretionary accruals generated by the models and provides several major insights. Firstly, they find that all of the models appear well specified when applied to a random sample of firm-years. Secondly, the models all generate tests of low power for earnings management of economically plausible magnitudes (e.g. one to five percent of total assets). Thirdly, all models reject the null hypothesis of no earnings management at rates exceeding the specified test-levels when applied to samples of firms with extreme financial performance. This result highlights earnings management. It was concluded that a modified version of the Jones (1991) model provides the most powerful tests of earnings management.

Pourjalali and Hansen (1996) subsequently developed a model that measures the amount of manipulation in the discretionary accruals. This model was developed to improve on the Jones (1991) model. They argue that the Jones (1991) model requires the use of long historical data to establish the expectation model. The long historical data necessary to establish the model may not be available in the database and hence could not be used. Pourjalali and Hansen (1996) use data of only 5 years to develop the model.

We believe that the Pourjalali and Hansen (1996) modified version of the Jones (1991) model can be easily used to measure the manipulated amount of accrual using the items that are available in the Kuala Lumpur Stock Exchange (KLSE). The modified model and its assumption are discussed below.

The accounting choice variable should measure the income effect of all discretionary choices made by a manager for a given period. Let A_t be the total income effect of the discretionary choices for period t . Since discretionary choices can affect revenues, variable expenses, and fixed expenses, A_t can be expressed as the sum of three discretionary sub-components:

$$A_t = A_{rt} + A_{vt} + A_{ft}$$

where

A_{rt} = the discretionary revenue effect

A_{vt} = the discretionary variable accrual effect

A_{ft} = the discretionary fixed accrual effect

Assessing each Sub-Component Effect provides a Measure for the Total Discretionary Effect.

The following assumptions are needed to build the desired measurement model:

1. *Receivables Assumption.* The ratio of true accounts receivable to true sales revenues can be measured using the average of prior period balances for these accounts; also, the ending accounts receivable balance is correctly stated for period t . "True" is defined as the amount that would be reported without manipulative changes.
2. *Cost Behavior Assumption.* Cost behavior can be described as a linear function of reported revenues. This function can be measured using the average of prior period balances for costs (operating expenses) and sales revenues.
3. *Fixed Expense Assumption.* The only significant fixed expenses are depreciation and amortization. Furthermore, APB Opinion 20 is operative⁵.

⁵ APB 20 requires that the current (or catch-up) approach be account for changes in accounting principles. The cumulative effect of the adjustment⁶ should be reported in the income statement between the captions "extraordinary items" and "net income")Accounting Changes, Options of the Accounting Principles Board No. 20, New York : AICPA, 1971)

Assessing the Discretionary Revenue Effect

The Receivable assumption suggests that a true ratio for accounts receivable to revenues exists. This ratio can be found using the following:

$$K = AR_{(t-n \text{ to } t-1)} / R_{(t-n \text{ to } t-1)}$$

Where:

n is an arbitrary length of time that is long enough to calculate the actual (unmanipulated) ratios. This time period usually varies from 5 to 10 years (periods).

t is the year under study. Then $t-1$ is the year before the year under study and so on.

K is the firm's normal accounts receivable to revenues ratio (averaged from n to $t-1$).

$R_{(t-n \text{ to } t-1)}$ is the firm's total revenue from $t-n$ to $t-1$.

$AR_{(t-n \text{ to } t-1)}$ is the firm's total accounts receivable from $t-n$ to $t-1$.

Assuming that the management has manipulated the revenue in period t , the accounts receivable to sales revenues ratio for t ($K_t = AR_t / R_t$) is not equal to K . Thus, using the receivables assumption and the calculated receivables factor, K , the true (non-manipulated) revenues, $R_{\pi t}$, can be computed:

$$\bar{K} = K - K_t^{(t)} \\ \bar{R}_{\pi t} = (AR_t - \bar{K} + R_t)$$

Given $R_{\pi t}$, the revenues manipulated in period t , R_{dt} , can be computed:

$$R_{dt} = R_t - R_{\pi t}$$

The total variable cost ratio is the difference between the total expenses and fixed expenses (i.e., the depreciation and amortization expenses), divided by reported revenues:

$$b_t = (E_t - F_t) / R_t$$

where

E_t = total reported operating expenses

F_t = Depreciation + Amortization (by the fixed expense assumption)

Finally, the income effect of manipulated revenues for period t can be calculated using R_{dt} and b_t :

$$A_{\pi t} = (R_{dt})(1 - b_t)$$

Assessing the Variable Accrual Effect

By the Cost Behavior assumption, the average variable accrued cost ratio of periods (t-n to t-1) can serve as the benchmark for assessing discretionary changes in variable accrued expenses in period t. Essentially, the change in the average variable accrued expense ratio for periods (t-n to t-1) to period t signals a discretionary change that belongs only to period t. Thus, the income effect is simply the change in ratio multiplied by the true revenues of period t. The income effect of manipulating variable accrued expenses is computed as follows⁶:

$$A_{vt} = (b_{(t-n \text{ to } t-1)} - b_t)R_{t1}$$

Note that if $(b_{(t-n \text{ to } t-1)} - b_t) > 0$, then income-increasing behavior is signaled. The opposite is signaled if $(b_{(t-n \text{ to } t-1)} - b_t) < 0$.

Assessing the Fixed Accrual Effect

Assessment of the fixed accrual effect relies on the fixed expense assumption. By this assumption, the only significant fixed accrued expenses are depreciation and amortization. Any changes in assessing these expenses and their effects on income must be disclosed. Since changes in accounting practices do not result from changes in a firm's underlying economic situations, all income effects of changes in the accounting practices are assumed manipulative. This amount is found by inspecting the income statement for period t.

CONCLUSIONS AND SUGGESTIONS FOR FUTURE RESEARCH

In late 1998, in a series of speeches in the financial community, former U.S. Securities and Exchange Commission Chairman Arthur Levitt declared war on "improper earnings management, big bath restructuring charges, and cookie-jar reserves." We have provided evidence that companies have the ability to manage earnings using Generally Accepted Accounting Principles (GAAP). Different reasons for this manipulation were provided in this paper including the existence of contracts among the firms and external/internal parties and the market pressure for firms to perform at an expected level.

While some suggest that it is faulty GAAP that results in earnings management (e.g., Ropsenfield, 2000), GAAP in and of itself cannot be a guard against every kind of possible abuse. The other aspects of the financial reporting process—corporate ethics and tone at the top, risk management and controls, effective audit committee oversight, capable auditing, and public accountability and enforcement, and more—are also essential components that contribute to high-quality information for investors (Parfet, 2000).

After the Enron case in the U.S.A., auditors' responsibility and role in earnings management has received closer attention in recent months. The external auditors' role has been questioned and internal audit committees have been subject to both restructuring and criticism. Given that GAAP provides the ability to manage earnings in any national and international setting, studies of earnings management are not only important in the U.S.A. but also in different international setting. Malaysian accounting standards, for the most part,

⁶ it is possible that managers can manipulate variable cash expenses as well. If the variable cash expense ratio is not constant because of manipulative behavior, then the change in the total cost ratio will also pick up this manipulation—an outcome that is obviously desirable

is in line with the International Accounting Standards that are similar to the U.S.A. GAAP in that they provide alternative ways of measuring income and consequently they create the ability to manage earnings. In this paper, we have provided a short summary of prior earnings management research⁷ and have suggested a model to test the earnings management in Malaysia. Further research is needed to identify those variables that affect the choices of accounting methods (hence earnings management) in the Malaysian business environment.

⁷ Healy and Wahlen (1999) also provide a summary of additional and relevant research.

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